

CPC**COOPERATIVE PATENT CLASSIFICATION****B62M****RIDER PROPULSION OF WHEELED VEHICLES OR SLEDGES;
POWERED PROPULSION OF SLEDGES OR { SINGLE-TRACK } CYCLES;
TRANSMISSIONS SPECIALLY ADAPTED FOR SUCH VEHICLES**

(arrangements or mounting of transmissions in vehicles in general B60K; transmission elements per se F16)

NOTE

In this subclass, the term "transmission" means all parts between the prime mover or the part to which a rider immediately applies propulsive effort, e.g. pedal cranks, and a driven ground wheel.>

Rider propulsion of wheeled vehicles (propulsion by ground-engaging rods [B62M 29/02](#))

B62M 1/00

Rider propulsion of wheeled vehicles (rider propulsion with additional source of power [B62M 6/00](#); propulsion by ground-engaging rods [B62M 29/02](#))

NOTE

Groups [B62M 1/12](#)-[B62M 1/34](#) correspond to IPC2013.01

B62M 1/10

. involving devices which enable the mechanical storing and releasing of energy occasionally, e.g. arrangement of flywheels

B62M 1/105

.. {using elastic elements}

B62M 1/12

. operated by both hand and foot power

B62M 1/14

. operated exclusively by hand power

B62M 1/16

.. by means of a to-and-fro movable handle-bar

B62M 1/18

. by movement of rider`s saddle

B62M 1/20

.. with additional rider propulsion means

B62M 1/24

. with reciprocating levers, e.g. foot levers (levers with can be immobilised as foot rests [B62M 5/00](#))

B62M 1/26

.. characterised by rotary cranks combined with reciprocating levers

B62M 1/28

.. characterised by the use of flexible drive members, e.g. chains

B62M 1/30

.. characterised by the use of intermediate gears

B62M 1/32

.. characterised by directly driving the wheel axle, e.g. by using a ratchet wheel

B62M 1/34

. by walking on an endless belt

B62M 1/36

. with rotary cranks, e.g. with pedal cranks ([B62M 1/34](#) takes precedence; combined with reciprocating levers [B62M 1/26](#); cranks which can be immobilised as foot rests

- [B62M 5/00](#))
- B62M 1/38 . . for directly driving the wheel axle
- B62M 3/00 Construction of cranks operated by hand or foot**
- B62M 3/003 . {Combination of crank axles and bearings housed in the bottom bracket (bottom bracket frame details [B62K 19/34](#))}
- B62M 3/02 . of adjustable length
- B62M 3/04 . . automatically adjusting
- B62M 3/06 . with elliptical or other non-circular rotary movement
- B62M 3/08 . Pedals
- B62M 3/083 . . {Toe clip}
- B62M 3/086 . . {Attachments between shoe and pedal other than toe clips, e.g. cleats (shoes for cyclists [A43B 5/14](#))}
- B62M 3/10 . . All-metal pedals
- B62M 3/12 . . with reflectors
- B62M 3/14 . Hand-grips for hand-operated cranks
- B62M 3/16 . Accessories
- B62M 5/00 Foot-driven levers as pedal cranks which can be immobilised as foot-rests (immobilising against theft [B62H 5/10](#))**
- B62M 6/00 Rider propulsion of wheeled vehicles with additional source of power, e.g. combustion engine or electric motor**
- NOTE**
- In this main group, at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place
- B62M 6/10 . Rider propelled cycles with auxiliary combustion engine
- B62M 6/15 . . Control or actuating devices therefor
- B62M 6/20 . . power-driven at crank shaft parts
- B62M 6/25 . . power-driven at axle parts
- B62M 6/30 . . power-driven at single endless flexible member, e.g. chain, between cycle crankshaft and wheel axle, the engine engaging the endless flexible member
- B62M 6/35 . . power-driven by friction rollers or gears engaging the ground wheel
- B62M 6/40 . Rider propelled cycles with auxiliary electric motor
- B62M 6/45 . . Control or actuating devices therefor
- B62M 6/50 . . . characterised by detectors or sensors, or arrangement thereof

- B62M 6/55 . . power-driven at crank shafts parts
- B62M 6/60 . . power-driven at axle parts
- B62M 6/65 . . . with axle and driving shaft arranged coaxially
- B62M 6/70 . . power-driven at single endless flexible member, e.g. chain, between cycle crankshaft and wheel axle, the motor engaging the endless flexible member
- B62M 6/75 . . power-driven by friction rollers or gears engaging the ground wheel

- B62M 6/80 . Accessories, e.g. power sources; Arrangements thereof
- B62M 6/85 . . Solar cells
- B62M 6/90 . . Batteries

- B62M 7/00** **Motorcycles characterised by position of motor or engine** (rider propulsion with addition source of power, e.g. auxiliary combustion engine or electric motor [B62M 6/00](#); frames characterised by position of engine [B62K 11/00](#))

- B62M 7/02 . with engine between front and rear wheels
- B62M 7/04 . . below the frame
- B62M 7/06 . . directly under the saddle or seat

- B62M 7/08 . with the engine over the rear wheel

- B62M 7/10 . with the engine over the front wheel

- B62M 7/12 . with the engine beside or within the driven wheel

- B62M 7/14 . with the engine on an auxiliary wheeled unit, e.g. trailer, sidecar (trailers [B60P](#), [B62D](#); sidecars [B62K 27/00](#))
- B62M 7/16 . . with wheel of unit driven by the engine

Tranmissions {(freewheels or freewheels clutches specially adapted for cycles [F16D 41/24](#))}

- B62M 9/00** **Transmissions characterised by use of an endless chain, belt, or the like** (cycle chain guards [B62J 13/00](#))

NOTE

In this main group, at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.

- B62M 9/02 . of unchangeable ratio

- B62M 9/04 . of changeable ratio
- B62M 9/06 . . using a single chain, belt, or the like
- B62M 9/08 . . . involving eccentrically- mounted or elliptically-shaped driving or driven wheel; with expansible driving or driven wheel
- B62M 9/085 {involving eccentrically mounted driving or driven wheel}

- B62M 9/10 . . . involving different-sized wheels, {e.g. rear sprocket chain wheels} selectively engaged by the chain, belt, or the like {(bicycle hubs rotatably arranged on axle [B60B 27/023](#))}
- B62M 9/105 { involving front sprocket chain-wheels engaged by the chain, belt or the like}
- B62M 9/12 the chain, belt, or the like being laterally shiftable, {e.g. using a rear derailleur}
- B62M 9/121 Rear derailleurs
- B62M 9/122 electrically or fluid actuated; Controls thereof
- B62M 9/123 changing gears automatically
- B62M 9/124 Mechanisms for shifting laterally
- B62M 9/1242 characterised by the linkage mechanisms
- B62M 9/1244 limiting or positioning the movement
- B62M 9/1246 using cams or plates
- B62M 9/1248 characterised by the use of biasing means, e.g. springs; Arrangements thereof
- B62M 9/125 Mounting the derailleur on the frame
- B62M 9/126 Chain guides; Mounting thereof
- B62M 9/127 Mounting or guiding of cables
- B62M 9/128 Accessories, e.g. protectors
- B62M 9/131 Front derailleurs
- B62M 9/132 electrically or fluid actuated; Controls thereof
- B62M 9/133 changing gears automatically
- B62M 9/134 Mechanisms for shifting laterally
- B62M 9/1342 characterised by the linkage mechanisms
- B62M 9/1344 limiting or positioning the movement
- B62M 9/1346 using cams or plates
- B62M 9/1348 characterised by the use of biasing means, e.g. springs; Arrangements thereof
- B62M 9/135 Mounting the derailleur on the frame
- B62M 9/136 Chain guides; Mounting thereof
- B62M 9/137 Mounting or guiding of cables
- B62M 9/138 Accessories, e.g. protectors
- B62M 9/14 the wheels being laterally shiftable
- B62M 9/16 . . . Tensioning or adjusting equipment for chains, belts or the like
- B62M 11/00** **Transmissions characterised by the use of inter-engaging toothed wheels or frictionally-engaging wheels** (with roller engaging the periphery of ground wheel [B62M 13/00](#))
- B62M 11/02 . . . of unchangeable ratio
- B62M 11/04 . . . of changeable ratio
- B62M 11/06 . . . with spur gear wheels ([B62M 11/14](#) takes precedence)
- B62M 11/08 . . . with a radially-shiftable intermediate gear wheel

- B62M 11/10 . . with bevel gear wheels ([B62M 11/14](#) takes precedence)
- B62M 11/12 . . with frictionally-engaging wheels ([B62M 11/14](#) takes precedence)
- B62M 11/14 . . with planetary gears
- B62M 11/145 . . . {built in, or adjacent to, the bottom bracket}
- B62M 11/16 . . . built in, or adjacent to, the ground-wheel hub
- B62M 11/18 . . . with a plurality of planetary gear units

- B62M 13/00** **Transmissions characterised by use of friction rollers engaging the periphery of the ground wheel** (for rider propelled cycles with additional source of power [B62M 6/35](#), [B62M 6/75](#))

- B62M 13/02 . with changeable ratio, e.g. with roller of varying diameter
- B62M 13/04 . with means for moving roller into driving contact with ground wheel

- B62M 15/00** **Transmissions characterised by use of crank shafts and coupling rods**

- B62M 17/00** **Transmissions characterised by use of rotary shaft, e.g. cardan shaft**

- B62M 19/00** **Transmissions characterised by use of non-mechanical gearing, e.g. fluid gearing**

- B62M 21/00** **Transmissions characterised by use of resilient elements therein**

- B62M 23/00** **Transmissions characterised by use of other elements; Other transmissions**

- B62M 23/02 . characterised by the use of two or more dissimilar sources of power, e.g. transmissions for hybrid motorcycles (transmissions for wheeled vehicles using rider propulsion with additional source of power [B62M 6/00](#))

- B62M 25/00** **Actuators for gearing speed-change mechanisms specially adapted for cycles** (rider operated controls for cycles in general [B62K 23/00](#); gearing speed change mechanisms [F16H](#))

- B62M 25/02 . with mechanical transmitting systems, e.g. cables, levers
- B62M 25/04 . . hand actuated
- B62M 25/045 . . . {having single actuating means operating both front and rear derailleur}
- B62M 25/06 . . foot actuated

- B62M 25/08 . with electrical or fluid transmitting systems

- B62M 27/00** **Propulsion devices for sledges or the like** (pushed or pulled by persons or animals [B62B](#), [B62C](#); wind propulsion [B62B 15/00](#))

- B62M 27/02 . power driven

- B62M 29/00** **Ground engaging propulsion devices for cycles, sledges, or rider-propelled wheeled vehicles, not otherwise provided for** **{(non-motorized scooters with skis or runners [B62K 3/002](#))}**
- [B62M 29/02](#) . using ground-engaging rods
- B62M 2003/00** **Construction of cranks operated by hand or foot**
- [B62M 2003/006](#) . Crank arrangements to overcome dead points
- B62M 2007/00** **Motorcycles characterised by position of motor or engine** **(rider propulsion with addition source of power, e.g. auxiliary combustion engine or electric motor [B62M 6/00](#); frames characterised by position of engine [B62K 11/00](#))**
- [B62M 2007/005](#) . the cycle being equipped with a pneumatic motor
- B62M 2009/00** **Transmissions characterised by use of an endless chain, belt, or the like** **(cycle chain guards [B62J 13/00](#))**
- NOTE**
- In this main group, at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.
- [B62M 2009/002](#) . Non-circular chain rings or sprockets
- [B62M 2009/005](#) . Details of transmission chains specially adapted for bicycles
- [B62M 2009/007](#) . Guides to prevent chain from slipping off the sprocket
- [B62M 2009/04](#) . of changeable ratio
- [B62M 2009/06](#) .. using a single chain, belt, or the like
- [B62M 2009/10](#) ... involving different-sized wheels, {e.g. rear sprocket chain wheels} selectively engaged by the chain, belt, or the like **{(bicycle hubs rotatably arranged on axle [B60B 27/023](#))}**
- [B62M 2009/12](#) the chain, belt, or the like being laterally shiftable, {e.g. using a rear derailleur}
- [B62M 2009/121](#) Rear derailleurs
- [B62M 2009/124](#) Mechanisms for shifting laterally
- [B62M 2009/12406](#) Rear derailleur comprising a rigid pivoting arm
- [B62M 2009/12413](#) Rear derailleur comprising telescoping mechanisms
- B62M 2025/00** **Actuators for gearing speed-change mechanisms specially adapted for cycles** **(rider operated controls for cycles in general [B62K 23/00](#); gearing speed change mechanisms [F16H](#))**

[B62M 2025/003](#) . with gear indicating means, e.g. a display

[B62M 2025/006](#) . with auxiliary shift assisting means

B62M 2027/00 **Propulsion devices for sledges or the like** (pushed or pulled by persons or animals [B62B](#), [B62C](#); wind propulsion [B62B 15/00](#))

[B62M 2027/02](#) . power driven

[B62M 2027/021](#) . . Snow bikes resembling conventional motorcycles

[B62M 2027/022](#) . . Snow drive conversions for cycles with wheels

[B62M 2027/023](#) . . Snow mobiles characterised by engine mounting arrangements

[B62M 2027/025](#) . . Snow mobiles characterised by the skis

[B62M 2027/026](#) . . Snow mobiles characterised by the suspension means

[B62M 2027/027](#) . . Snow mobiles characterised by the tracks

[B62M 2027/028](#) . . Snow mobiles characterised by chassis or bodywork

B62M 2700/00 **Rider propulsion of bicycles or vehicles having transmission mainly of unchangeable ratio**

[B62M 2700/001](#) . Propulsion of bicycles and vehicles using planetary gears transmission

[B62M 2700/003](#) . Propulsion of bicycles and vehicles using toothed wheels transmission

[B62M 2700/005](#) . Propulsion of bicycles and vehicles using bevel/conical wheels transmission

[B62M 2700/006](#) . Propulsion of bicycles and vehicles using cranks having reciprocating levers

[B62M 2700/008](#) . Propulsion of bicycles and vehicles using other means

B62M 2701/00 **Transmissions for motorcycles or motorised bicycles characterised by position of engine or gear box**

[B62M 2701/0007](#) . Construction details of gear box for motorcycles

[B62M 2701/0015](#) . Transmissions and/or engine attachment to frame

[B62M 2701/0023](#) . Transmissions using belt, chain and friction wheel

[B62M 2701/003](#) . . Motorcycles or bicycles with engine besides or within driven wheel

[B62M 2701/0038](#) . . Motorcycles or bicycles with engine over the front or rear wheel

[B62M 2701/0046](#) . Gear change control and other for motorcycles or bicycles

[B62M 2701/0053](#) . . Control by means of a lever

- B62M 2701/0061 . . Control of pulleys in transmission
- B62M 2701/0069 . Engine control
- B62M 2701/0076 . Chain and chainwheel
- B62M 2701/0084 . Clutch control by driver
- B62M 2701/0092 . Clutch arrangement in the transmission

- B62M 2901/00 Rear derailleur supported by the chain-stay or rear fork of the bicycle**